

REMARKS

Claims 1 through 20 are pending in this Application. The specification has been amended to reflect the current status of various mentioned co-pending Applications. Claims 1, 8, 11 and 19 have been amended. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, page 12 of the written description of the specification, line 6 through page 13 line 17 and page 13 lines 23 and 24. Applicants submit that the present Amendment does not generate any new matter issue.

Claims 1, 3 through 5, 10 through 14 and 17 were rejected under 35 U.S.C. 102 for lack of novelty as evidenced by Tsuya et al.

In the statement of the rejection, the Examiner referred to Fig. 1, the examples and to column 4, lines 35-40. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.* 329 F.3d 1358 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). In imposing a rejection under 35 U.S.C. 102 for lack of novelty, the Examiner must **specifically identify** wherein an applied reference is perceived to **identically** describe **each** feature of a claimed invention. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v.*

American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). That burden has not been discharged. Moreover, in relying upon the doctrine of inherency, the Examiner must provide a factual basis upon which to predicate the determination that an allegedly inherent feature **necessarily** flows from the teachings of the applied prior art. *Crown Operations International Ltd. v. Solutia Inc.*, *supra.*; *Finnegan Corp. v. ITC*, 180 F.3d 1354, 51 USPQ2d 1001 (Fed. Cir. 1999); *In re Robertson*, 169 F.3d 743, 49 USPQ2d 1949 (Fed. Cir. 1999). That burden has also not been discharged. Indeed, there are fundamental differences between the claimed inventions and the magnetic recording media and methodology disclosed by Tsuya et al. that scotch the factual determination that Tsuya et al. disclose a magnetic recording medium and method identically corresponding to those claimed.

Independent Claims 1 and 11

Even before the present Amendment, independent claims 1 and 11 specified that the pattern on the aluminum or aluminum alloy layer is substantially replicated on the magnetic layer to form a **data zone**. It is not apparent and the Examiner has not specifically identified wherein Tsuya et al. are concerned with the data zone. Rather, Tsuya et al. appear to address the problem of stiction/friction encountered during the contact start stop (CSS) mentioned at page 2 of the written description of the specification, first full paragraph. Tsuya et al. address that problem by forming **enlarged pores** in an aluminum layer which are designed to be replicated on the magnetic layer to prevent sticking of the magnetic head and **retention of the lubricant**. These objectives

support the conclusion that the pattern is formed in the **landing zone** – not in the data zone.

At any rate, claims 1 and 11 have been amended by reciting an underlayer and specifying that the magnetic grain clusters of the magnetic layer are separated by pattern boundaries, thereby minimizing grain interactions and increasing SNR. Clearly, the function of the pattern in the aluminum layer is not for tribology, as is the purpose of the pattern employed by Tsuya et al. having enlarged pores for lubricant retention. Rather, the function of the pattern is, as recited in claims 1 and 11, is for segregation of the magnetic clusters, thereby minimizing grain interactions and increasing SNR.

Tsuya et al. neither disclose nor suggest employing an underlayer.

Tsuya et al. neither disclose nor suggest forming a pattern in a **data zone**. Tsuya et al. neither disclose nor suggest forming a pattern such that **grain interactions are minimized** and SNR is increased. Tsuya et al. are concerned with tribological properties and lubricant retention.

There is **no** apparent factual basis of record upon which to predicate the conclusion that one having ordinary skill in the art would have been realistically impelled to deviate from the teachings of Tsuya et al. and form an underlayer between the patterned aluminum layer and the magnetic layer. Indeed, as noted by the Examiner, the magnetic film is deposited **on** the substrate surface after pore widening, and the thin film follows the surface roughness of the substrate, apparently in the landing zone. There is no apparent reason, based upon **facts**, **why** one having ordinary skill in the art would have interposed an underlayer to **break** that required interrelation between the patterned

aluminum layer and the magnetic layer. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

Moreover, should the Examiner contemplate rejecting claim 1 under 35 U.S.C. 103, Applicants would stress that the problem addressed and solved by the claimed invention must be given consideration in resolving the ultimate legal conclusion of obviousness under 35 U.S.C. 103. *North American Vaccine, Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 28 USPQ2d 1333 (Fed. Cir. 1993); *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 15 USPQ2d 1321 (Fed. Cir. 1990); *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989); *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975). As previously pointed out, the present invention is concerned with providing a textured substrate to influence the data zone of an overlying magnetic layer by segregating magnetic grains of the magnetic layer, thereby minimizing grain interactions and increasing SNR. That problem is not even a blip on the radar screen of Tsuya et al. who are concerned with tribological properties and lubricant retention. Clearly, under the circumstances in the present case, the problem addressed and solved by the claimed invention is entitled to consideration as a potent indicium of **nonobviousness** anent 35 U.S.C. 103, should the Examiner consider altering the rejection.

The above argued differences between the claimed magnetic recording medium and method and those disclosed by Tsuya et al. undermine the factual determination that Tsuya et al. identically describe the claim inventions within the meaning 35 U.S.C. 102. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976

F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 1, 3 through 5, 10 through 14 and 17 under 35 U.S.C. 102 for lack of novelty as evidenced by Tsuya et al. is not factually viable and, hence, solicit withdrawal thereof. Moreover, for reasons argued *supra.*, Applicants submit that the claimed inventions are free of 35 U.S.C. 103.

Claims 6, 7, 15 and 16 were rejected under 35 U.S.C. 103 for obviousness predicated upon Tsuya et al.

In the statement of the rejection, the Examiner **admitted** that Tsuya et al. do not disclose depositing the aluminum alloy at a thickness of 50Å to 5000Å. That is an epic understatement. The Examiner then concluded that one having ordinary skill in the art would have been motivated to optimize the thickness of the pore depth to minimize anodization time. This rejection is traversed as clearly erroneous.

Firstly, claims 6 and 7 depend from independent claim 1, while claims 15 and 16 depend from independent claim 11. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 1 and 11 under 35 U.S.C. §102 for lack of novelty as evidenced by Tsuya et al. The Examiner's additional comments with respect to claims 6, 7, 15 and 16 do not cure the argued deficiencies of Tsuya et al. Accordingly, the Examiner's proposed modification of Tsuya et al. would not yield the claimed inventions. *Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).* Further, Applicants **separately**

argue the patentability of **claims 6, 7, 15 and 16**. Specifically, Applicants do not agree that the requisite motivational element has been established.

The Examiner asserts that one having ordinary skill in the art would have been motivated to optimize the thickness of the aluminum layer. Question: **Where** does the prior art disclose that the thickness of the aluminum layer is an art recognized result effective variable? Is does **not**. Accordingly, the Examiner's attempt to manipulate this variable is legally erroneous. See, for example, *In re Rijckaert, supra.*; *In re Yates*, 663 F.2d 1054, 211 USPQ 1149 (CCPA 1981); *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

The Examiner notes that the only example revealed by Tsuya et al. has an aluminum alloy thickness of 10,000Å. That is **twice** the maximum thickness recited in the claims. One having ordinary skill in the art cannot be said to be realistically motivated to optimize a variable so **far completely without** the disclosed value. *In re Sebek*, 465 F.2d 904, 175 USPQ 93 (CCPA 1972).

The Examiner asserts, as a reason to optimize the aluminum layer thickness, minimization of anodization time. Question: **Where** is that in the applied prior art? It is **not**. Hence, the Examiner's asserted motivation is completely without any factual basis. In this respect, Applicants would specifically rely upon *In re Lee, supra*. Applicants would also specifically rely upon *Teleflex Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 63 USPQ2d 1374, 1387 (Fed. Cir. 2002), wherein the Honorable Court held:

The showing of a motivation to combine must be clear and particular, and it must be supported by actual evidence.

Clearly, the Examiner's asserted motivation is without any factual basis.

It should, therefore, be apparent that a *prima facie* basis to deny patentability to the inventions defined in claims 6, 7, 15 and 16 has not been established. Moreover, upon giving due consideration to the problem addressed and solved by the claimed invention, the conclusion appears inescapable that one having ordinary skill in the art would **not** have found the claimed inventions **as a whole** obvious within the meaning of 35 U.S.C. 103. *Jones v. Hardy*, 727 F.2d 1524, 220 USPQ 1021 (Fed. Cir. 1984).

Applicants, therefore, submit that the imposed rejection of claims 6, 7, 15 and 16 under 35 U.S.C. 103 for obviousness predicated upon Tsuya et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Claims 2 and 18 were rejected under 35 U.S.C. 103 for obviousness predicated upon Tsuya et al. in view of Baumgart et al.

In the statement of the rejection, the Examiner concluded that one having ordinary skill in the art would have been motivated to modify the medium and method disclosed by Tsuya et al. by providing a laser textured landing zone. This rejection is traversed.

Firstly, claims 2 and 18 depend from independent claims 1 and 11, respectively. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 1 and 11 under 35 U.S.C. §102 for lack of novelty as evidenced by Tsuya et al. The additional reference to Baumgart et al. does not cure the argued deficiencies of Tsuya et al. Accordingly, even if the applied references are

combined, the claimed inventions would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp., supra.*

Further, Applicants vigorously separately argue the patentability of claims 2 and 18. Specifically, Tsuya et al. provide a particular patterned aluminum layer for improved tribology and lubricant retention. Applicants submit it is inconceivable that one having ordinary skill in the art would have been realistically impelled to modify the particular **pore enlarged** structure and methodology of Tsuya et al. by laser texturing a minute pattern thereon, particularly in the landing zone which is the zone of tribological significance, let alone with a reasonable expectation of successfully achieving the particular objectives of Tsuya et al., i.e., improved tribology and lubricant retention. There is no reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Merely, because Baumgart et al. disclose laser texturing a landing zone is no reason to undo the particular **pore enlarged** structure and methodology of Tsuya et al.

Applicants would stress that laser texturing provides very fine patterns; whereas, not even the anodization of Tsuya et al. is large enough. Indeed, Tsuya et al. etch the pores after anodization to **increase their size**. Thus, the notion of laser texturing is completely **inconsistent** with the teachings of Tsuya et al. It is well settled that one having ordinary skill in the art cannot be presumed motivated to modify a reference in a manner **inconsistent** with the disclosed objectives. *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992); *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); *In re Schulpen*, 390 F.2d 1009, 157 USPQ 52 (CCPA 1968).

Based upon the foregoing, it should be apparent that a *prima facie* basis to deny patentability to the inventions defined in claims 2 and 8 has not been established.

Moreover, upon giving due consideration to the problems addressed and solved by the claimed invention, the conclusion appears inescapable that one having ordinary skill in the art would **not** have found the claimed inventions **as a whole** obvious within the meaning of 35 U.S.C. 103. *Jones v. Hardy, supra*.

Applicants, therefore, submit the imposed rejection of claims 2 and 18 under 35 U.S.C. 103 for obviousness predicated upon Tsuya et al. in view of Baumgart et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Claims 8, 9, 19 and 20 were rejected under 35 U.S.C. 103 for obviousness predicated upon Tsuya et al. in view of Lai et al. and Lambeth et al.

In the statement of the rejection, the Examiner concluded that one having ordinary skill in the art would have been motivated to modify the structure of Tsuya et al. consistent with the teachings of Lai et al. and to increase coercivity, SNR and recording density, undoubtedly noble objectives. This rejection is traversed.

Firstly, claims 8 and 9 depend from independent claim 1, while claims 19 and 20 depend from independent claim 11. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 1 and 11 under 35 U.S.C. §102 for lack of novelty as evidenced by Tsuya et al. The additional references to Lai et al. and Lambeth et al. do not cure the argued deficiencies of Tsuya et al. Accordingly, even if the applied references are combined as proposed by the Examiner, and that is a big if with which Applicants do not agree, the claimed inventions

would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp., supra.* Moreover, the Applicants **separately argue** the patentability of **claims 8, 9, 19 and 20.**

As previously stressed, Tsuya et al. provide a particular structure such that the magnetic layer is **directly on** the patterned aluminum layer to improve tribological properties and increase lubricant retention, apparently in the landing zone. What impact the imposition of the seedlayer and underlayer would have on the objective of Tsuya et al. has not been addressed. Applicants submit that one having ordinary skill in the art would not have been realistically motivated to interpose any layers between the purposely patterned aluminum layer with purposely enlarged pores and the magnetic layer in the structure disclosed by Tsuya et al., with any reasonable expectation of achieving the stated objectives of Tsuya et al. *In re Vaeck, supra.* Indeed, any such modification would appear to be **inconsistent** with the expressed disclosure of Tsuya et al. and, hence, legally erroneous. *In re Fritch, supra.; In re Gordon, supra.; In re Schulpen, supra.*

Based upon the foregoing, it should be apparent that a *prima facie* basis to deny patentability to the claimed inventions has not been established for lack of the requisite factual basis and want of the requisite realistic motivation. Moreover, upon giving due consideration to the problems addressed and solved by the claimed invention, which are of no apparent concern to Tsuya et al., the conclusion appears inescapable that one having ordinary skill in the art would **not** have found the claimed inventions **as a whole** obvious within the meaning of 35 U.S.C. 103. *Jones v. Hardy, supra.*

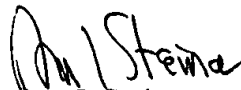
Applicants, therefore, submit that the imposed rejection of claims 8, 9, 19 and 20 under 35 U.S.C. 103 for obviousness predicated upon Tsuya et al. in view of Lai et al. and Lambeth et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing, Applicants submit that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: December 9, 2003